

REMARKS

The cancellation of Claims 1 and 7 renders moot their rejection under 35 U.S.C. 102(b) over Koga et al (U.S. patent 4,839,459). Further, the cancellation of Claim 1 renders moot its rejection under 35 U.S.C. 102(b) over Cicha et al (WO 97/30932).

Claims 2-5 and 8 are pending.

The claimed invention – the embodiments of Claims 2,3,4 and 8- is directed to a process for producing phosgene having low concentration of carbon tetrachloride entailing reacting carbon monoxide with chlorine in the presence of elemental carbon. Critical features of the inventive process are the temperature (30-80°C) and pressure (120-400 kP_{abs}) of the gas stream emerging from the reactor. The invention resides in the findings of the critical dependence of the efficacy of the process on the temperature and pressure. Claim 5 is directed to an embodiment where the carbon monoxide is characterized by its low concentration of methane.

Claims 1 -4 and 8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al. The rejection of Claim 1 is both erroneous and mooted by its cancellation.

Cicha disclosed a process for the manufacture of phosgene comprising contacting a mixture of carbon monoxide and chlorine with carbon. Key to Cicha's process is the purity of the carbon and its oxidative stability. Since Cicha disclosed nothing relative to the pressure entailed in the reaction the applicants respectfully assert that the prima facie case has not been made and the rejection sounding in obviousness is clearly untenable. While noting and accepting the Examiner's assumption that Cicha's process is conducted at 101kPa Applicants respectfully assert that the document failed describe or remotely suggest the presently claimed higher pressures.

Reconsideration of the rejection over Cicha is requested and its withdrawal respectfully urged.

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cicha et al. In view of Obrecht (U.S. Patent 4,231,959).

Obrecht disclosed producing phosgene by reacting presently relevant reactants in a reaction zone to produce a product that contains phosgene and unreacted carbon monoxide and then separating substantially all the phosgene from the unreacted carbon monoxide and recycling at least a portion of the unreacted carbon monoxide to the reaction zone. Obrecht provides no information relative to the criticality of pressure and temperature nor does it disclose that these parameters may influence the content of carbon tetrachloride in the product. Most importantly, it is not clear why or how the Obrecht and Cicha disclosures might be combined at all, and much less for the combination to result in the presently claimed process. The rejection over Cicha in view of Obrecht is clearly untenable and its retraction is requested.

Believing the above represent a complete response to the Office Action and that the application is in condition for allowance, applicants request the earliest issuance of an indication to this effect.

Respectfully submitted,

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MARKED UP VERSION REFLECTING CHANGES

As explicitly set forth in 37 C.F.R. Section 1.12©(1)(ii), last sentence, a marked up version does not have to be supplied for an added claim or a cancelled claim as it is sufficient to state that a particular claim has been added, or cancelled, and this has been so stated in the Amendment.

In particular, in this case, Claims 1 and 7 have been cancelled.